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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,990	08/21/2003	Jurgen Zimmermann	66489-027-5	7087

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EXAMINER

SUCHECKI, KRYSZYNA

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,990

Applicant(s)

ZIMMERMANN ET AL.

Examiner

Krystyna Suchecki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-44 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19,21,23,25,27,29 and 31-37 is/are allowed.
- 6) ☒ Claim(s) 18,20,22,30 and 38-44 is/are rejected.
- 7) ☒ Claim(s) 24,26,28 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 02/21/01. It is noted, however, that applicant has not filed a certified copy of the 101 08 297.5 application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to because Figures 2-7 have black shading. See 37 C.F.R. 1.84(m). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

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Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 18, 20, 22, 30, and 38-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Dove (US 5,179,579).
5. Regarding Claim 18, Figures 1 and 4a of Dove teach a system for specifying at least one sensor holder (29) for the creation of an image of an object, said sensor holder supporting a digital sensor (Column 3, lines 30-42) of a dental X-ray apparatus, comprising:
 - a. an input and display device (24) for interactive control of the system, wherein a schematic image of the object to be X-rayed can be displayed on the display device (Abstract),
 - b. means for selecting one of the sensor holder and the sensor for creating the desired image of the object (operator selects device 29), and
 - c. a processing unit (21) for automatically generating the schematic image for the selected sensor holder on the basis of the desired image of the object and for displaying said schematic image on the display device.
6. Regarding Claim 20, Dove teaches a system as defined in claim 18, wherein the image comprises a digital X-ray image for viewing an area (24) of the object to be imaged when the selected sensor holder is used (Figure 4b).
7. Regarding Claim 22, Dove teaches a system as defined in claim 20, wherein the selected area is high- lighted in color (Column 3, lines 17-29).
8. Regarding Claim 30, Dove teaches a system as defined in claim 18, further comprising a PC controlled by software to realize desired functionality (Column 3, lines 1-29).
9. Regarding Claim 38, Dove teaches a method of specifying a sensor holder for the creation of an image of an object, wherein the sensor holder supports a digital sensor of dental X-

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ray apparatus, comprising a first step, in which the sensor holder is selected (Column 3, lines 29-42), a second step, in which the sensor is assigned to a sensor holder (Column 3, lines 29-42), a third step, in which a schematic image is computed, based on the position of the selected sensor holder and based on the sensor used, wherein it can be seen from the schematic image that area of the object that will be imaged when the selected sensor holder is used (Figures 4a and 4b), and a fourth step, in which the schematic image thus generated is displayed in a general display (24) and the area of the general display covered by the schematic image is optically highlighted (Figure 1).

10. Regarding Claim 39, Dove teaches a method of specifying a sensor holder for the creation of an image of an object, wherein the sensor holder supports a digital sensor of dental X-ray apparatus (Column 3, lines 29-42), comprising a first step, in which a predetermined number of possible objects to be X-rayed is displayed in a general display (Figures 4a and 4b), a second step, in which a predetermined number of objects to be X-rayed is selected from a plurality of objects shown in the general display (Column 4), and a third step, in which a sensor holder and, optionally, an associated sensor is assigned to each of the objects to be X-rayed and a template is shown (Column 4, line 62 through Column 5).

11. Regarding Claim 40, Dove teaches a method as defined in claim 39, further comprising a fourth step, in which the template is moved across the general display for purposes of control and thus the imaging area appertaining to the template is revealed, wherein the third and fourth steps are iteratively continued until a suitable combination of holder and imaging area is displayed (Columns 5-6).

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12. Regarding Claims 41 and 42, Dove teaches a method as defined in claim 38, wherein the general display comprises an X-ray image and, the object to be X-rayed is selected from an X-ray image, preferably an X-ray image of the patient to be examined (Figure 4b).

13. Regarding Claims 43 and 44, Dove teaches a data medium, containing a data structure that is capable of running on a computer for carrying out the method as defined in claims 38 or 39 into effect Figure 1 and Column 3).

Allowable Subject Matter

14. Claims 19, 21, 23, 25, 27, 29, 31-37 are allowed.

15. Claims 24, 26 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: Claim 19 contains allowable subject matter for at least the reason that the prior art of record fails to teach or reasonably suggest a system for specifying at least one sensor holder for the creation of an image of an object, wherein the sensor holder supports a digital sensor of dental X-ray apparatus, comprising an input and display, means for selecting and a processing unit which automatically selects a suitable sensor holder and displays the sensor holder on the display device as claimed. While art such as Ciaciosi (US 6,652,141) and Carroll (US 6,527,442) teach multiple sensor X-ray systems and methods, a user selects the sensor and sensor holder for the X-ray procedure and no mention is made of the display of the selection. Claim 24 contains allowable subject matter for at least the reason that the prior art of record fails to teach or reasonably suggest a system for specifying at least one sensor holder for the creation of an image

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of an object, said sensor holder supporting a digital sensor of a dental X-ray apparatus wherein a plurality of sensor holders are displayed on the processing unit. While Ciaciosi teaches color differentiation between sensor holders, the processing unit of Ciaciosi does not display the plurality. Claim 26 contains allowable subject matter for at least the reason that the prior art of record fails to teach or reasonably suggest a system for specifying at least one sensor holder for the creation of an image of an object, said sensor holder supporting a digital sensor of a dental X-ray apparatus wherein selecting means effect semiautomatic selection by presenting means and comparative means determine which suitable sensor holders can be specified. Claim 28 contains allowable subject matter for at least the reason that the prior art of record fails to teach or reasonably suggest a system for specifying at least one sensor holder for the creation of an image of an object, said sensor holder supporting a digital sensor of a dental X-ray apparatus further comprising means which transfer selection data with respect to the sensor holder to the X-ray apparatus. While Ciaciosi and Carroll teach selection of a sensor in a sensor holder, they are silent on transferring data based on the selection. Claims 32 and 33 contain allowable subject matter for at least the reason that the prior art of record fails to teach or reasonably suggest an X-ray apparatus comprising a computer interface and a system as defined in claim 19. Claims 21, 23, 25, 27, 29 and 31-37 contain allowable subject matter at least by virtue of their dependency.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent to Regam Medical Systems (WO 92/22188) is of interest for teaching a digital sensor in a sensor holder (Figure 1).

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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (571) 272-2495.

The examiner can normally be reached on M-F, 9-5.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER